REMARKS

Claims 1-11, 13, 15, 16, and 21-33 are pending in the present Application. Claims 1, 24, 26, 28, and 30, have been amended, leaving Claims 1-11, 13, 15, 16, and 21-33 for consideration upon entry of the present Amendment.

No new matter has been introduced by these amendments. Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

Amendments to the Claims

The Examiner responded to the arguments filed on 6/29/2007 stating in part that the limitations do not add any structural or material limitations to the broadly claimed article and hence are viewed as intended use only. (Office Action dated 09/21/2007, p. 9) As is st forth in detail below, the Applicants have amended the claims to an article comprising an electrical component, the electrical component being an electrical conduction winding, stator bar, or a stator piece. Applicants respectfully submit this amendment clarifies that the claims are directed to the recited electrical components, which are present as structural limitations.

Claim 26 has been amended to correct a typographical error.

Claim Rejections Under 35 U.S.C. § 102(a), (b), (e)

Claims 1, 3, 4, 9, 13, 15, 16, and 21-32 stand rejected under 35 U.S.C. § 102(b), as allegedly anticipated by United States Patent No. 6,849,926 to Park et al., hereinafter "Park". Applicants respectfully traverse this rejection.

Park teaches a composite containing nano magnetic particles in a dielectric matrix. (Park, abstract)

Independent Claims 1, 28 and 30 have been amended to claim an article, the article comprising one of three types of an electrical component, an electrical conduction winding, stator bar, or a stator piece. Claim 24 claims a method of manufacturing an article comprising disposing an electrically insulating layer upon an electrical component, wherein the electrical component is an electrical conduction winding, stator bar, or a stator piece.

To anticipate a claim, a reference must teach every limitation of the claim. (MPEP 2131) Park does not disclose an article comprising an electrical component, the electrical component being an electrical conduction winding, stator bar, or a stator piece. Because Park does not disclose an electrical conduction winding, stator bar, or a stator piece, Park does not teach every limitation of independent Claims 1, 24, 28 and 30. Claims 3, 4, 9, 13, 15, 16, 21-23, 25-29, and 31-32 depend directly or indirectly from independent claims 1, 24, 28 and 30, thus are also patentable.

In addition, dependent Claim 21 claims an article with an electrical breakdown strength of greater than or equal to about 0.75 kilovolt. Park does not disclose electrical breakdown strength, let alone an electrical breakdown strength of greater than or equal to about 0.75 kilovolt.

Claim 22 claims an article wherein the insulating layer has an electrical breakdown strength of greater than or equal to about 1 kilovolt and is corona resistant to an applied voltage of 5000 Volts at a frequency of 3 kilohertz for a time period of greater than100 minutes. Park does not disclose breakdown strength or corona resistance, thus Park does not disclose an article wherein the insulating layer has an electrical breakdown strength of greater than or equal to about 1 kilovolt and is corona resistant to an applied voltage of 5000 Volts at a frequency of 3 kilohertz for a time period of greater than100 minutes.

Claim 23 claims an article wherein the insulating layer has an electrical breakdown strength of greater than or equal to the breakdown strength of the thermosetting polymer. Park does not disclose breakdown strength, thus does not disclose an article wherein the insulating layer has an electrical breakdown strength of greater than or equal to the breakdown strength of the thermosetting polymer.

Claim 29 claims an article wherein the mineral filler is mica comprising phlogopite or muscovite. Park does not disclose mica, thus does not disclose an article wherein the mineral filler is mica comprising phlogopite or muscovite.

Claim 31 claims an article wherein the article comprises an electrically insulating layer, wherein the electrically insulating layer comprises a nanosized filler, wherein the nanosized filler comprises silicon carbide, titanium carbide, tungsten carbide, iron carbide, or a combination comprising at least one of the foregoing metal carbides. Park does not disclose carbide, thus does not disclose an article that comprises a nanosized filler,

wherein the nanosized filler comprises silicon carbide, titanium carbide, tungsten carbide, iron carbide, or a combination comprising at least one of the foregoing metal carbides.

Thus Park does not disclose all of the limitations of dependent claims 21-23, 29 and 31. Therefore, in addition to the reasons stated above, Claims 21-23, 29 and 31 are patentable over Park.

Claims 28-31 stand rejected under 35 U.S.C. § 102(b), as allegedly anticipated by United States Patent No. 4,390,596 to Laurent et al., hereinafter "Laurent". Applicants respectfully traverse this rejection.

Laurent discloses an active or passive electronic component encapsulated within a bis-imido polymer composition (Laurent, abstract.) Laurent discloses mineral fillers such as particles of mica, talk, calcium hydrosilicate of the Wollastonite type, calcium carbonate (calcite) and magnesium carbonate (dolomite), alumina, hydrated alumina, kaolin or silica, or alternatively glass microbeads or also asbestos fibers or glass fibers (Laurent, Cols. 8, line 65 to Col. 9, line 2) Laurent discloses particle size of 0.1 to 200 micrometers. (Laurent, Col. 9, line 4) Thus Laurent discloses particle size of 100 to 200000 micrometers.

Claims 28 and 30 have been amended to claim an article comprising an electrically insulating layer, wherein the electrically insulating layer comprises a nanosized filler, the nanosized filler having an average largest dimension of less than or equal to about 75 nanometers. Support for the amendment can be found at least in the Specification as originally filed on page 12, ¶ 41.

Laurent does not disclose an article comprising a nanosized filler, let alone a filler with particle size less than 75 nm. Therefore Laurent does not disclose all of the limitations of Claims 28 and 30. Because Laurent does not disclose all of the limitations of Claims 28 and 30, Claims 28 and 30 are not anticipated by Laurent. Therefore Claims 28 and 30 are patentable. Claim 29 depends upon Claim 28, and Claim 31 depends upon Claim 30, thus are also patentable.

In addition, dependent Claim 31 claims an article wherein the article comprises a nanosized filler, wherein the nanosized filler comprises silicon carbide, titanium carbide, tungsten carbide, iron carbide, or a combination comprising at least one of the foregoing

metal carbides. Laurent does not disclose carbide, thus does not disclose an article that comprises a nanosized filler, wherein the nanosized filler comprises silicon carbide, titanium carbide, tungsten carbide, iron carbide, or a combination comprising at least one of the foregoing metal carbides.

Because Laurent does not disclose all of the limitations of the instant claims Applicants respectfully assert Laurent does not anticipate the instant claims. Accordingly, Applicants respectfully request withdrawal of the rejection and allowance of the claims.

Claims 30-31 stand rejected under 35 U.S.C. § 102(b), as allegedly anticipated by United States Patent No. 4,493,873 to Keane, et al., hereinafter "Keane". Applicants respectfully traverse this rejection.

Keane teaches a corona-resistant wire enamel composition comprising alumina particles. (Keane, Col. 3, lines 30-35) The alumina used in Keane is fumed alumina. (Col. 3, lines 38-41) Keane specifically teaches that the use of fumed alumina is advantageous in that it can be used to decrease the coil size and include a greater quantity of copper in the same coil size. (Col. 4, lines 55-58)

Independent Claim 30 claims an article comprising nanosized metal oxides wherein the nanosized metal oxides comprise calcium oxide, cerium oxide, magnesium oxide, titanium oxide, zinc oxide, silicon oxide, copper oxide, or a combination comprising at least one of the foregoing metal oxides, nanosized metal carbides or a combination comprising at least one of the foregoing metal oxides and metal carbides. Keane does not disclose calcium oxide, cerium oxide, magnesium oxide, titanium oxide, zinc oxide, silicon oxide, copper oxide, or a combination comprising at least one of the foregoing metal oxides, nanosized metal carbides or a combination comprising at least one of the foregoing metal oxides and metal carbides. The Applicants respectfully note alumina is not one of calcium oxide, cerium oxide, magnesium oxide, titanium oxide, zinc oxide, silicon oxide, or copper oxide. Therefore Keane does not disclose all of the limitations of Claim 30. Because Keane does not disclose all of the limitations of Claim 30, Keane does not anticipate Claim 30. Therefore Claim 30 is patentable over Keane.

In addition, dependent Claim 31 claims an article wherein the nanosized metal carbides comprise silicon carbide, titanium carbide, tungsten carbide, iron carbide, or a

combination comprising at least one of the foregoing metal carbides. Keane does not disclose carbide, thus does not disclose an article wherein the nanosized metal carbides comprise silicon carbide, titanium carbide, tungsten carbide, iron carbide, or a combination comprising at least one of the foregoing metal carbides. Therefore, in addition to the reasons provided above for independent Claim 30, because Keane does not disclose all of the limitations of Claim 31, Claim 31 is not anticipated and thus is patentable over Keane.

Claims 28-31 stand rejected under 35 U.S.C. § 102(a) or (e), as allegedly anticipated by United States Patent No. 6,783,828 to Fujimaru, et al., hereinafter "Fujimaru". In addition, Claims 28-31 stand rejected under 35 U.S.C. § 102(b), as allegedly anticipated by JP 2002064276A to Masahiko et al., hereinafter "Masahiko". Applicants respectfully traverse these rejections and address the rejections together.

Fujimaru teaches a resin composition having a phase separation structure having at least two phases and inorganic particles having a mean primary particle size of 0.1 □m or less (Fujimaru, abstract.) Masahiko teaches a photosetting or thermosetting resin composition. (Masahiko, abstract, English translation.)

Independent Claims 28 and 30 claim an article comprising an electrical component, the electrical component being an electrical conduction winding, stator bar, or a stator piece.

Neither Fujimaru nor Masahiko disclose an article comprising an electrical component, the electrical component being an electrical conduction winding, stator bar, or a stator piece. Therefore neither Fujimaru or Masahiko disclose all of the limitations of independent Claims 28 and 30. Because neither Fujimaru or Masahiko disclose all of the limitations of Claims 28 or 30, neither Fujimaru nor Masahiko anticipate Claims 28 and 30. Thus Claims 28 and 30 are patentable over Fujimaru and Masahiko. Claims 29 and 31 depend upon Claims 28 and 30, respectively, thus are also patentable.

Claim Rejections Under 35 U.S.C. § 102(e)/103(a)

Claims 1, 3-9, 13, 15, 24, and 27-31 stand rejected under 35 U.S.C. § 102(e) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over United States Patent No. 6,869,683 to Sakurai et al., hereinafter "Sakurai". Applicants respectfully traverse this rejection.

Sakurai teaches an electromagnetic wave absorber comprising an electromagnetic wave absorbing layer integrally laminated with an electromagnetic wave reflecting layer. (Sakurai Col. 2, lines 58-61) Sakurai discloses silicone resin as a dispersing medium. (Sakurai Col. 3, lines 64) Sakurai discloses an electromagnetic wave absorbing filler can be a soft magnetic ferrite such as Ni-Zn ferrite. (Sakurai Col. 6, line 66 to Col. 7, line 13) Sakurai discloses less than 5% by volume may fail to impart the desired electromagnetic wave absorbing ability. (Sakurai Col. 7, lines 40-41)

The Examiner asserts that the 5% by volume taught by Sakurai would fall within the instantly claimed weight percentage ranges or read on the claimed endpoint of "about 15%". (Office Action dated 09/21/2007, p. 7) In the alternative, the Examiner asserts use of the electromagnetic wave absorbing filler at a particle size of 100nm and an amount as low as 5% by volume would be obvious. (Office Action dated 09/21/2007, p. 7)

As noted above, Claims 1, 28 and 30 have been amended to claim an article, the article comprising an electrical component, the electrical component beingan electrical conduction winding, stator bar, or a stator piece. Also noted above, Claim 24 claims a method of manufacturing an article comprising disposing an electrically insulating layer upon an electrical component, wherein the electrical component is an electrical conduction winding, stator bar, or a stator piece.

Sakurai does not disclose an article comprising an electrical component, the electrical component being an electrical conduction winding, stator bar, or a stator piece.

In addition, Sakurai teaches filler should preferably have a mean particle size of about 0.1 μm to about 100μm. (0.1μm is 100 nm) Claims 28 and 30 claim an article comprising a nanosized filler, the nanosized filler having an average largest dimension of less than or equal to about 75 nanometers. Sakurai does not disclose a nanosized filler having an average largest dimension of less than or equal to about 75 nanometers.

Because Sakurai does not teach every limitation of Claims 1, 24, 28 and 30, Claims 1, 24, 28 and 30 are not anticipated by Sakurai. Claims 3-9, 13, 15, 27, 29 and 31 depend directly or indirectly from independent claims 1, 24, 28 and 30, thus are also not anticipated by Sakurai.

In addition, dependent Claim 29 claims an article wherein the mineral filler is mica comprising phlogopite or muscovite. Sakurai does not disclose mica, thus does not

disclose an article wherein the mineral filler is mica comprising phlogopite or muscovite. Therefore, in addition to the reasons stated above, Claim 29 is not anticipated by Sakurai.

Moreover, one of ordinary skill in the art would not have been prompted to modify Sakauri to arrive at the instant claims because one of ordinary skill in the art would not have had a reasonable expectation of success modifying Sakurai to arrive at the instant claims. The article disclosed by Sakurai comprises an electrically conductive filler. (Sakurai Col. 3, line 65) The instant specification discloses composite coatings for groundwall insulation. The instant claims are directed to an article comprising an electrically insulating layer (Claims 1, 28 and 30) or a method comprising disposing an electrically insulating layer (Claim 24) One of ordinary skill in the art would not be prompted to modify a material comprising an electrically conductive filler to provide an electrically insulating layer. Therefore one of ordinary skill in the art would not have had a reasonable expectation of success modifying a material comprising an electrically conductive filler to provide an electrically insulating layer. Thus the article of claims 1, 28 and 30, which comprises an electrically insulating layer, and the method of Claim 24, which comprises disposing an electrically insulating layer, is non-obvious over Sakurai.

Because Sakurai does not disclose all of the limitations of the instant claims, would not have suggested to one of ordinary skill in the art to modify Sakauri to provide the claimed article, and would not have provided a reasonable expectation of success, Sakauri does not establish a *prima facie* case of obviousness as discussed in MPEP 706.02(j). Therefore the instant claims are novel and non-obvious over Sakauri. Accordingly, Applicants respectfully request withdrawal of the rejection and allowance of the claims.

Further Claim Rejections Under 35 U.S.C. § 103

Claims 10, 16, 25, 26, and 32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sakurai. In light of the amendments to independent Claims 1, 24, 28, and 30, and in view of the foregoing remarks, Applicants respectfully submit that the obviousness rejections to dependent claims 10, 16, 25, 26, and 32 over Sakurai are moot.

Reconsideration and withdrawal of the rejection are respectfully requested.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly,

reconsideration and withdrawal of the objection(s) and rejection(s) and allowance of the case are respectfully requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 07-0868.

Respectfully submitted,

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